

LISTING OF THE CLAIMS

1. (Previously Presented) An integrated guidance system comprising:
 - a position determination system adapted for determining a current position;
 - a differential global position determination system adapted for using a differential correction process to correct errors, wherein a differential correction may be stored in an electronic file and accessed later or said differential correction may be applied in real time;
 - a lightbar device adapted for providing a visual representation of a deviation of said current position from a desired path to guide movement along said desired path;
 - a data input device for scrolling, selecting, and editing operations, including configuring said position determining system with a menu, and wherein said data input device comprises a first button, a second button, and a third button;
 - a display device for displaying text, said menu and graphics, said text, said menu, and said graphics adapted to be viewable under various light conditions, wherein an operator is able to vary the contrast and brightness of said text, said menu, and said graphics by using buttons to interact with a user interface of said integrated guidance system, and wherein said first button, said second button, and said third button facilitate interacting with a plurality of available functions displayed on said display device;
 - a processor adapted for facilitating user interaction by integrating operation of said position determination system, said lightbar device, said data input device, and said display device; and
 - a housing enclosing said position determination system, said lightbar device, said data input device, said display device and said processor, wherein said housing has a first wing-shaped portion and a second wing-shaped portion configured to protect a cable connector extending from said housing, and wherein said first button, said second button, and said third button of said data input device are positioned on a top surface of said housing for convenient access by an operator of said integrated guidance system, and wherein said first button is larger than said second button and said third button to reduce

the need for visual assistance by said operator to distinguish said first button, said second button, and said third button.

2. (Original) The integrated guidance system as recited in Claim 1 wherein said position determination system comprises:
 - a Global Positioning System (GPS) antenna; and
 - a GPS receiver.
3. (Original) The integrated guidance system as recited in Claim 2 wherein said GPS antenna is positioned externally and separately relative to said GPS receiver.
4. (Cancelled)
5. (Original) The integrated guidance system as recited in Claim 1 wherein said lightbar device comprises a plurality of lights that are adapted to emit a light pattern that indicates said deviation.
6. (Original) The integrated guidance system as recited in Claim 5 wherein said plurality of lights are spaced apart and are aligned in a row, and wherein said light pattern is formed selectively illuminating particular ones of said plurality of lights.
7. (Original) The integrated guidance system as recited in Claim 5 wherein said plurality of lights comprises a plurality of light emitting diodes (LEDs).
8. (Cancelled)
9. (Cancelled)
10. (Previously Presented) The integrated guidance system as recited in Claim 1 wherein said display device displays said available functions in a menu-driven manner that is user friendly.

11. (Original) The integrated guidance system as recited in Claim 1 wherein said display device comprises a liquid crystal display (LCD).
12. (Previously Presented) An integrated guidance system comprising:
 - a position determination system adapted for determining a current position;
 - a differential global position determination system adapted for using a differential correction process to correct errors, wherein a differential correction may be stored in an electronic file and accessed later or said differential correction may be applied in real time;
 - a lightbar device adapted for providing a visual representation of a deviation of said current position from a desired path to guide movement along said desired path;
 - a data input device for scrolling, selecting, and editing operations, including configuring said position determining system with a menu, and wherein said data input device comprises a first button, a second button, and a third button;
 - a display device for displaying text, said menu and graphics, said text, said menu, and said graphics adapted to be viewable under various light conditions, wherein an operator is able to vary the contrast and brightness of said text, said menu, and said graphics by using buttons to interact with a user interface of said integrated guidance system, and wherein said first button, said second button, and said third button facilitate interacting with a plurality of available functions displayed on said display device;
 - a user interface system adapted for facilitating user interaction by integrating operation of said position determination system, said lightbar device, said data input device, and said display device; and
 - a housing enclosing said position determination system, said lightbar device, said data input device, said display device, and said user interface, wherein said housing has a first wing-shaped portion and a second wing-shaped portion configured to protect a cable connector extending from said housing, and wherein said first button, said second button, and said third button of said data input device are positioned on a top surface of said housing for convenient access by an operator of said integrated guidance system, and wherein said first button is larger than said second button and said third button to reduce

the need for visual assistance by said operator to distinguish said first button, said second button, and said third button.

13. (Original) The integrated guidance system as recited in Claim 12 wherein said position determination system comprises:
 - a Global Positioning System (GPS) antenna; and
 - a GPS receiver.
14. (Original) The integrated guidance system as recited in Claim 13 wherein said GPS antenna is positioned externally and separately relative to said GPS receiver.
15. (Cancelled)
16. (Original) The integrated guidance system as recited in Claim 12 wherein said lightbar device comprises a plurality of lights that are adapted to emit a light pattern that indicates said deviation.
17. (Original) The integrated guidance system as recited in Claim 16 wherein said plurality of lights are spaced apart and are aligned in a row, and wherein said light pattern is formed by selectively illuminating particular ones of said plurality of lights.
18. (Original) The integrated guidance system as recited in Claim 16 wherein said plurality of lights comprises a plurality of light emitting diodes (LEDs).
19. (Original) The integrated guidance system as recited in Claim 12 wherein said user interface system comprises:
 - a processor; and
 - processor-executable instructions for implementing a user interface.
20. (Cancelled)

21. (Cancelled)
22. (Cancelled)
23. (Currently Amended) The integrated guidance system as recited in Claim ~~[[21]]~~ 12 wherein said user interface system displays on said display device said available functions in a menu-driven manner that is user friendly.
24. (Original) The integrated guidance system as recited in Claim 12 wherein said display device comprises a liquid crystal display (LCD).
25. (Previously Presented) A method of interacting with a guidance system, said method comprising:
- displaying on a display device of said guidance system a plurality of available functions in a menu-driven manner that is user friendly, wherein said display device is adapted for displaying text and graphics, including configuring said guidance system with said menu, said text, said menu, and said graphics adapted to be viewable under various light conditions, wherein an operator is able to vary the contrast and brightness of said text, said menu, and said graphics by using buttons to interact with a user interface of said guidance system; and
- providing said guidance system a data input device adapted for accessing and interacting with any one of said available functions with a minimum number of inputs and with minimum use of said inputs, wherein said data input device enables scrolling, selecting, and editing operations, said data input device comprising a first button, a second button, and a third button that facilitate interacting with a plurality of available functions displayed on said display device, and wherein said display device, said guidance system, and said data input device are integrated in a housing, wherein said housing has a first wing-shaped portion and a second wing-shaped portion configured to protect a cable connector extending from said housing, said first button, said second button, and said third button of said data input device are positioned on a top surface of said housing for convenient access by an operator of said integrated guidance system, and

wherein said first button is larger than said second button and said third button to reduce the need for visual assistance by said operator to distinguish said first button, said second button, and said third button.

26. (Cancelled)

27. (Cancelled)

28. (Original) The method as recited in Claim 25 wherein said guidance system further comprises:

a position determination system adapted for determining a current position; and

a lightbar device adapted for providing a visual representation of a deviation of said current position from a desired path to guide movement along said desired path.

29. (Original) The method as recited in Claim 28 wherein said position determination system comprises:

a Global Positioning System (GPS) antenna; and

a GPS receiver.

30. (Original) The method as recited in Claim 29 wherein said GPS antenna is positioned externally and separately relative to said GPS receiver.

31. (Cancelled)

32. (Original) The method as recited in Claim 28 wherein said lightbar device comprises a plurality of lights that are adapted to emit a light pattern that indicates said deviation.

33. (Original) The method as recited in Claim 32 wherein said plurality of lights are spaced apart and are aligned in a row, and wherein said light pattern is formed by selectively illuminating particular ones of said plurality of lights.

34. (Original) The method as recited in Claim 32 wherein said plurality of lights comprises a plurality of light emitting diodes (LEDs).
35. (Original) The method as recited in Claim 25 wherein said display device comprises a liquid crystal display (LCD).